UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
US Ecology South, Detroit, Michigan

FROM: Brianna Fenzl, Environmental Engineer
AECAB (IL/IN)

THRU: Nathan Frank, Section Supervisor
AECAB (IL/IN)

TO: File

BASIC INFORMATION

Facility Name: US Ecology South

Facility Location: 1923 Frederick St, Detroit, Michigan

Date of Inspection: August 16th, 2022

EPA Inspector(s):
1. Brianna Fenzl, Environmental Engineer
2. Natalie Schulz, Environmental Engineer

Other Attendees:
1. Jonathan Lamb, Senior Environmental Quality Analyst, Michigan Department of Environment, Great Lakes, and Energy (EGLE)
2. Tabetha Peebles, Environmental Compliance Manager, US Ecology
3. Jake Danko, Operations Manager, US Ecology
4. Paul Haratyk, Chemical Fixation Building Manager, US Ecology
5. John Barta, General Manager, US Ecology

Contact Email Address: tabetha.peebles@usecology.com

Purpose of Inspection: Compliance with Clean Air Act

Facility Type: Hazardous waste disposal

Regulations Central to Inspection: EGLE Air Permit

Arrival Time: 8:52 AM
Departure Time: 11:25 PM

Inspection Type:
☒ Unannounced Inspection
☐ Announced Inspection

OPENING CONFERENCE

☒ Presented Credentials
☒ Stated authority and purpose of inspection
☒ Small Business Resource Information Sheet not provided. Reason: Not a Small Business
☒ Provided CBI warning to facility

The following information was obtained verbally from US Ecology South (US Ecology) unless otherwise noted.

Company Ownership: Republic Services has purchased all of US Ecology stock as of May 2022.

Process Description:
US Ecology takes a sample of the waste to be dropped off for treatment, to test in the lab on site. Waste is taken to the chemical fixation building, where it is either placed in vaults to be treated for landfill or taken to the oily waste treatment building. In the chemical fixation building, waste must have less than 500 ppm of volatile organic compounds (VOC). Reagents are added to ensure the waste passes for toxic characteristic leaching procedure levels. US Ecology uses fly ash, cement kiln dust, and bed ash as drying reagents and sodium sulfide and ferrous sulfide for metals. The mixture cures in vaults overnight, approximately 10-12 hours. Two baghouses are connected to the building that are monitored by alarms and checked for pressure daily. In 2007, a stack test was performed on the chemical fixation building measuring particulate matter (PM) and VOC. For oily waste treatment, oil is skimmed off the top to be shipped off to be processed by a third-party. The tanks in the oily waste building are heated up to 160 °F during treatment. The remaining wastewater goes to the wastewater treatment plant on site. Waste treated in the oily waste treatment process is strictly non-hazardous. There is a scrubber connected to the oily waste building, where all tanks are connected. For the wastewater treatment building, there are no air controls. The wastewater treatment system operates under a batch process. US Ecology performs PFAS treatment through a filter system.

There are 3 perimeter fence line air monitors measuring levels of PM, VOC, and metals required by their hazardous waste permit.

Staff Interview:

US Ecology operates 7 AM to 5 PM on Monday through Friday, occasionally Saturday and Sunday, with 85 employees.

Before 2021, emission calculations were done in-house. For last 1-2 years US Ecology has been tracking their emissions with a spreadsheet made by environmental consultant, Trinity. EPA requested US Ecology's emission reports for the past three years to ensure compliance with permitted limits for treatment and source wide.

TOUR INFORMATION

EPA Tour of the Facility: Yes

Data Collected and Observations:
EPA inspectors first observed the chemical fixation building, the 5 silos that store the various reagents on site, both baghouses connected, and control room. EPA then observed the wastewater treatment plant building, which operates under a batch process. There are 2 ferric chloride tanks and 1 sodium hypochlorite tank, both 5500-gallon capacity tanks. EPA observed the oily waste treatment area and scrubber. EPA confirmed temperatures of tanks in primary and secondary tanks with respect to their oil recovery process and operational restrictions in their permit. US Ecology has material limits for VOC content of waste received and oil/waste processed that EPA requested. Finally, EPA viewed one of the fence line air monitors.

EPA requested scrubber records to ensure compliance with scrubber operation parameters that US Ecology is required to maintain by their permit.

Photos and/or Videos: were not taken during the inspection.

Field Measurements: were not taken during this inspection.

RECORDS REVIEW

1. Facility and process map

CLOSING CONFERENCE

☒ Provided U.S. EPA point of contact to the facility

Requested documents:
- Past month of scrubber records
- Tank inventory
- Baghouse change schedule
- Last three years of annual air emission reports
- One month of temperature records
- Last three years of process tank throughput

DIGITAL SIGNATURES

Report Author: BRIANNA FENZL Digitally signed by BRIANNA FENZL Date: 2022.10.05 12:22:17 -05'00'

Section Supervisor: NATHAN FRANK Digitally signed by NATHAN FRANK Date: 2022.10.07 13:00:25 -05'00'